SYNONYMIES AND NEW SPECIES OF FLEA-BEETLES

(COLEOPTERA, CHRYSOMELIDAE)

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During a short stay in the summer of 1950 in several European museums I came upon a number of cases in which entomologists had redescribed species or even genera, and this paper deals in part with such synonymies. The rest of it is concerned with half a dozen new species of flea-beetles that have come to my attention.

Prasona exclamationis (Boheman)

Figs. 2 and 5.

Baly[1] described the genus *Prasona* as "near *Crepidodera* but separated by the different form of the antennae and the irregularly punctured elytra." Actually the genus is closer to *Systena* except for being broader, with a prothorax that is half again as wide as long and with a slight basal depression that is faintly limited on the sides. Jacoby has written that *Prasona* differed from *Systena* in having more robust antennae and that the tibiae as in *Systena* all have a single short spur, not, as Baly wrote, two spurs on the hind tibae. According to the Junk Catalogue, the genus contains 4 species: (1) *P. viridis* Baly from Mexico which is the type of the genus (he made a curious mistake in naming as the type of the genus *Prasona prasina*, although on the next page he described the species as *Prasona viridis*); (2) *P. balyi* Harold[2] from Colombia; Harold himself was doubtful whether this really belonged to Baly's genus and I am convinced that it does not, because of its pubescent and striately punctate elytra; (3) *P. haroldi* Baly[3] from Paraguay; (4) *P. peruviana* Jacoby,[4] which is large and green like the rest. There is a fifth species, hitherto not referred to the genus but described under two genera, first by Boheman[5] as *Systena exclamationis* from Argentina and secondly by Clark[6] as *Disonycha viridipennis* from Brazil. I have examined the types of both and found them the same. This species bears such a close relationship to *P. haroldi* that H. S. Barber has written on the label, "*Systena exclamationis* ? equals *Prasona haroldi.*" and G. E. Bryant on a label of *Prasona haroldi* "probably

[1]Baly, Journ. Ent., vol. 1, 1861, p. 300.
[2]Harold, Col. Hefte, vol. 14, 1875, p. 32 .
[3]Baly, Ann. Mag. Nat. Hist., (5) II, 1878, p. 230.
[4]Jacoby, Proc. Zool. Soc. London, 1904, p. 407.
[5]Boheman, Eugen. Resa, Coleoptera, 1859, p. 192.
[6]Clark, Journ. Ent., vol. 2, 1865, p. 402.

equals *Disonycha viridipennis.*" As shown by the figures of the aedeagi (Figs. 2 and 5) *P. haroldi* is quite distinct from *exclamationis;* in addition it is somewhat larger with slightly different elytral markings and a wider prothorax. As in some species of *Systena, viz. S. S-littera* (L.), there is a color difference in the sexes; in both *haroldi* and *exclamationis* the males have dark legs and undersurface and often darker markings above, while the females have yellow or reddish brown legs and undersurface. But the most striking difference is in the enlargement of the basal joint of the antennae in the male into a sort of hook projecting under the second joint, of which there is little trace in the female. There is a large series of *P. exclamationis* in the U.S. National Museum collected by H. L. Parker on sunflower and thistle at Colonia Suiza, Uruguay.

Nephrica Harold

The description of the genus *Nephrica* appeared in a paper[7] on Peruvian beetles in 1877 with one species, *N. kirschi.* Von Harold's description of the profoundly emarginate, reniform eyes caused Baly[8] in describing the genus *Cyclophysa* to write that his genus agreed with *Nephrica* in regard to the eyes and many other characters but differed in the form of the body which was circular and closely resembled that of *Sphaeroderma.* Since then *Cyclophysa* has been synonymized with *Nephrica* and Jacoby has described 14 more species which he wrote might be *Disonycha* or *Asphaera* but for the reniform eyes. Bryant, in fact, has transferred two of Clark's species of *Asphaera* to *Nephrica,* presumably because of the reniform eyes.

I have found in the British Museum two specimens of still another genus described by Clark[9] as *Pedilia* (*P. rufa*) that are congeneric with *Nephrica* and most closely related to *Cyclophysa albicornis* Baly and *Nephrica globosa* (Fabricius). In fact all three species are so close to each other that only the color of the antennae and slight differences in punctation distinguish them. They are all of a circular shape, and all are pale yellow. *Pedilia rufa* Clark from Para has distinctly punctate elytra with faint traces of ribbing and the surface is shiny and uneven. The antennae have brownish outer joints. *Cyclophysa albicornis* Baly from Peru has the elytra as distinctly punctate as *rufa* but not rugose or with any traces of costae, and the antennae are entirely pale. *Nephrica globosa* (Fabricius) from "America meridionalis" has black antennae

[7]Harold, Deut. Ent. Zeit., vol. 21, 1877, p. 132.
[8]Baly, Trans. Ent. Soc. London, 1879, p. 241.
[9]Clark, Journ. Ent., vol. 2, 1865, p. 384.

and distinctly punctate elytra. I have examined the types of all these species at the British Museum and at Copenhagen. Besides these, there are specimens in the British Museum collected by Cockerell in British Guiana with smooth, not punctate elytra and black antennae that may be still a fourth species of this group of pale yellow, circular beetles. Clark's generic name *Pedilia* is the earliest and should supplant the name *Nephrica* for these species of this character. Possibly *Nephrica* can be retained for the oblong species that Jacoby wrote were so close to *Disonycha* and *Asphaera*. I have not examined the type of *kirschi*, upon which Harold based his genus, *Nephrica*, but it is an oblong oval beetle according to his description.

Apraea jansoni Baly

Apraea jansoni Baly, Trans. Ent. Soc. London, 1877, p. 294.
Glyptobregma orphninum Blake, Proc. Ent. Soc. Wash., vol. 50, 1948, p. 123.

Apraea jansoni Baly, the type of which I examined at the British Museum, is an earlier name for *Glyptobregma orphninum* Blake and that monotypic generic name must replace *Glyptobregma* and all the species described under *Glyptobregma* be transferred to the genus, namely, *Glyptobregma clathratum* (Suffrian), *G. pyritosum* (Suffrian), *G. robustum* (Suffrian), *G. interstitiale* (Suffrian) and *G. turquinense*, *G. portoricense*, *G. bruneri*, *G. aeneum*, *G. cyanellum*, all described by the author.

Systena basalis Jacq. Duval

Systena basalis Jacq. Duval, in Ramon de Sagra's Hist. fis. Cuba, vol. 7, 1856, p. 129.
Systena ornata Baly, Trans. Ent. Soc. London, 1877, p. 288.

A single female in the British Museum, the type of *S. ornata* Baly, with a faint trace of a pale spot near the base of the elytra and another near the apex, is clearly merely the female of *Systena basalis* Jacq. Duval, which differs somewhat in coloring from the male with its entire pale elytral vitta. Baly's specimen came from Jamaica. This species is a well known pest on cotton, tobacco and many vegetables in Cuba, Puerto Rico, Hispaniola and Jamaica.

Halticidea dichroa (Suffrian)

Haltica dichroa Suffrian, Archiv für Naturg., vol. 34, 1868, p. 203.
Asbecesta violacea Allard, Ann. Soc. Ent. Belg., vol. 34, 1890, p. LXXXVII.

There seems to be little doubt that Allard was describing the same species that Suffrian had many years previously.

The inclusion of the West Indian species in an African genus composed of species twice its size simply on account of its parallel form and the transverse groove on the prothorax, without regard to the lack of spurs on the legs and the presence of nearly bifid claws, is entirely out of place. Horn,[10] when describing the genus *Halticidea*, compared Suffrian's description of *H. dichroa* from Cuba with his species from Florida and Texas and came to the conclusion that they were probably congeneric. Although I have seen no material of Suffrian's species, I am convinced that it is properly placed in *Halticidea*.

In 1946 and in 1948 I described two species rather doubtfully under the genus *Dicoelotrachelus*, viz. *D. glaber* Blake[11] from Haiti and *D. violaceus* Blake[12] from Puerto Rico. They are, in fact, closely related to *Halticidea modesta* Horn from Florida, and should not have been placed with the pubescent species having quite differently shaped heads and open coxal cavities upon which the description of the genus *Dicoelotrachelus*[13] was based. *H. dichroa* (Suffrian), according to Suffrian's and Allard's descriptions, has finely punctate elytra, thereby differing from both the Haitian and Puerto Rican species. Since my specific name *violaceus* although applied to the different Puerto Rican species is a homonym of Allard's I hereby propose the name *Halticidea barberi* for the Puerto Rican *Dicoelotrachelus violaceus* in view of the fact that H. S. Barber had partially worked out this synonymy himself, as shown by specimens in the collection. The Haitian species becomes *Halticidea glabra* (Blake).

Distigmoptera orchidophila, new species

Fig. 6

Nearly 3 mm. in length, oblong oval, densely punctate, black with the antennae pale except for joints 7-10 which are black; legs except at base and hind femora pale; covered with long, fine, erect, golden brown hairs, prothorax uneven with 2 tubercles in middle and the elytra with a pit near the suture before the middle, and striately punctate.

Head dark brown, coarsely and densely punctate throughout and with yellow-brown erect hairs; antennal sockets closely placed with a fine carina between extending down the front. Antennae not extending much below humeri, the first two or three joints pale brownish, joints 4-6 yellow, 7-10 much thicker and black, apical joint pale. Prothorax almost as long as broad with nearly straight sides and a

[10]Horn, Trans. Am. Ent. Soc., vol. 20, 1893, p. 61.
[11]Blake, Proc. Ent. Soc. Wash., vol. 48, 1946, p. 113.
[12]Blake, Proc. Ent. Soc. Wash., vol. 50, 1948, p. 121.
[13]Blake, Proc. Ent. Soc. Wash., vol. 43, 1941, p. 171.

sharp apical tooth, convex and uneven on surface with two small gibbosities anterior to the middle, coarsely and shallowly and contiguously punctate, with long erect yellow hairs. Scutellum covered with flatly appressed, shining yellow hairs. Elytra wider than prothorax, densely and coarsely striate punctate with interstitial raised lines, and with a pronounced sulcus from within the humerus down to near the suture ending in a pit; covered rather sparsely with fine erect hairs and beneath with shorter, denser and appressed hairs, the latter varying in color, with some irregular patches of white hairs especially on apical half, and coppery hairs along the suture especially near the pit. Body beneath shining deep brown, the prosternum coarsely punctate. Anterior femora at base and hind femora entirely dark, tibiae pale with a brown streak. Length 2.7 mm.; width 1.5 mm.

Type male, U.S.N.M. Type No. 60944, taken on an orchid from Charvarillo (Vera Cruz), Mexico, at Laredo, Texas, May 28, 1946.

Remarks. This is the fourth species of *Distigmoptera* to be described from Mexico and Central America, and is distinguished from *D. brevihirta* Blake by having long hairs, and from *D. capillosa* Blake by being deep piceous, not brown, and with varicolored pubescence instead of uniformly brown. It differs from *D. suturalis* (Jac.) by not being "sparingly pubescent."

Distigmoptera chrysodaedala, new species

Fig. 4

About 3 mm. in length, elongate oblong, densely and coarsely punctate, deep piceous with pale yellow brown antennae having joints 7-10 black, and bicolored anterior legs, the hind tibiae darker and covered with long brown and white pubescence; the upper surface covered by fine, erect, denser, shorter and closely appressed hairs, being along the suture especially golden.

Head dull piceous, densely and coarsely punctate with an irregular raised median line down front to tubercles, tubercles shiny and somewhat raised, from tubercles down covered by short erect golden hairs; antennal sockets not so closely placed as in *D. orchidophila* and the space between not keel-shaped but flat and coarsely punctate. Antennae not extending much below the humeri, very hairy, the four basal joints brownish with the third one longest, joints 5, 6 and 11 pale yellow brown, joints 7-10 black, apical joints much thickened. Prothorax as long as wide, with sides nearly straight and a small tooth at apex; surface dull, coarsely and contiguously punctate with short golden pubescence and longer, darker and less dense, erect hairs; two gibbosities anterior to the middle. Scutellum covered with appressed golden hairs. Elytra considerably wider than prothorax with prominent humeri and a long incurving sulcus ending near the suture in a pit; coarsely and striately punctate but not so densely as in *D. orchidophila*, the interspaces

between the striate rows being flat and nearly as wide as the punctures, not adjacent as in *D. orchidophila;* covered rather sparsely with erect, fine, long, dark hairs and beneath these a closely appressed, short pubescence varying in color, but along suture being golden brown and near apex with many white patches. Body beneath shining chestnut brown, the prosternum coarsely punctate and with dense golden pubescence. Anterior legs pale with the femora dark brown at base and a little dark shading on tibiae; hind femora dark and densely clothed above with brown and white hairs. Length 3 mm.; width 2.5 mm.

Type male, U.S.N.M. Type No. 60945, taken on an orchid from the Federal District, Mexico, Feb. 17, 1947, the exact locality of capture unknown.

Remarks. Like the previous species, this single male specimen was taken on an orchid from Mexico. It is quite distinct from the other four Central American and Mexican species in being more elongate and shaped like the larger species from North America, such as *D. apicalis* and *texana.* The elytral punctation is less dense than in the other Central American species that I have described and it is not "sparingly pubescent" as in Jacoby's *D. suturalis.*

Hermaeophaga cuprea, new species

Fig. 1

About 2 mm. in length, oval, with lustrous black head, prothorax, and legs, and polished coppery elytra; the stout dark antennae with the four distal joints pale yellow, the body beneath brownish.

Head entirely dark, polished and smoothly rounded over occiput down to frontal tubercles without depressions or grooving, tubercles deeply marked, and a slightly produced narrow keel between the rather closely placed antennal sockets, eyes widely separated and entire. Antennae stout, conspicuously hairy, the basal four joints deep brown, joints 5-7 black and 8-11 pale yellow. Prothorax half again as wide as long, rather convex, with a groove extending across base and disappearing on either side without a limiting sulcus, entirely black and mirror smooth. Scutellum black. Elytra convex and rounded, a beautiful shining coppery brown, almost mirror smooth but with very indistinct fine obsolete punctures that seem to be striate. Body beneath deep shining brown with lustrous piceous black femora, the anterior coxal cavities open, the hind legs with thickened femora, the tibiae without channelling and the hind ones with an apical spur, the claws appendiculate. Length 2-2.4 mm.; width 1.2-1.4 mm.

Type male, U.S.N.M. Type No. 60949, and 3 paratypes, collected by H. G. Hubbard in Jamaica.

Other material. One specimen collected by E. A. Chapin at Ferry River, Jamaica, May 5, 1941; two specimens in Bow-

ditch collection, M.C.Z., from Jamaica, labeled 1st Jacoby collection, 1858, J. Gray, and placed among the unidentified species of *Hermaeophaga*.

Remarks. I am following Jacoby, who has described most of the New World species of *Hermaeophaga*, in placing this and the following species in that genus, although I do not believe that the American species are very closely related to the European *H. cicatrix* Illiger, the type of the genus. The two new species here described, unlike the European ones, do not have the basal sulcus of the prothorax limited at the ends by any groove running at right angles to the basal sulcus, and the elytra appear striate punctate, not confusedly so.

Hermaeophaga nigrorubra, new species

Fig. 3

About 2 mm. in length, oval, shining, the head, prothorax and upper third of elytra, legs and undersurface, except the reddish brown abdomen, black. Antennae black with the four basal and two distal joints pale yellow, elytra striately punctate.

Head smoothly rounded over occiput, impunctate and without grooves or depressions down to tubercles, these small and distinctly marked by shallow grooves, a small carina between antennal sockets. Antennae robust, hairy and black, the four basal and two apical joints pale. Prothorax nearly half again wider than long, with nearly straight sides and obliquely cut anterior angles, convex, with a well-marked basal sulcus disappearing at the sides as in *H. cuprea;* surface shining black, densely and moderately coarsely punctate. Scutellum black. Elytra convex, deeply striate punctate on basal half, becoming fainter but still distinct at apex, shining black on basal third and bright reddish brown on remainder. Body beneath and legs shining black, except the reddish brown abdomen, the prosternum coarsely and shallowly punctate in the middle. Length 2.2 mm.; width 1.2 mm.

Type female, U.S.N.M. Type No. 60948, collected at Palma Mocha, Sierra Maestra, Cuba, July 10-20, 1922 by C. H. Ballou and S. C. Bruner.

Remarks. This species is very similar in shape and coloring to *H. cuprea* but has much more distinct striate punctures on the elytra and the basal part of the elytra is dark.

Cyrsylus trinitatis, new species

Fig. 7

From 2-2.5 mm. in length, oblong oval, shining, varying from pale yellow brown and dark brown with a bluish lustre to deep blue elytra with deep reddish brown head, prothorax and legs, elytra distinctly striate punctate.

Head shining mirror smooth from occiput down to frontal tubercles, pale yellow brown to deep brown, tubercles distinctly marked with a groove from above them to eye; antennal sockets closely set with a little carina between, lower front short. Antennae not reaching the middle of the elytra, brownish with joints 3-11 subequal. Prothorax not quite twice as broad as long with sides slightly arcuate and oblique anterior angles, surface shining, very finely and not densely punctate; varying from pale yellow to deep piceous. Scutellum large, triangular. Elytra wider than prothorax with moderately prominent humeri and distinct striate punctures not becoming confused or indistinct at apex; color varying from pale yellow brown to deep metallic blue. Body beneath varying in color from pale to dark, the anterior coxal cavities narrowly closed, hind tibiae with a tiny spur at apex, first tarsal joint nearly as long as the others together. Length 2-2.6 mm.; width 1-1.5 mm.

Type male and 16 paratypes in British Museum, 2 paratypes retained for the U.S.N.M., Type No. 60946, and 2 for the M.C.Z. Collected in Trinidad, B.W.I., in 1903 by G. E. Bryant.

Other material. One specimen collected on the Arima Blanchisuisse Rd., 8th m., Trinidad, Oct. 29, 1918 by Harold Morrison.

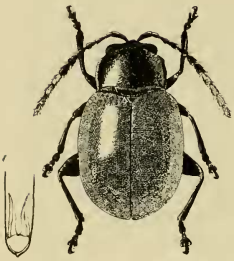
Remarks. The variability in coloring in this species is similar to that occurring in *C. recticollis* Jac. from Central America. It also resembles that species in having entirely striate punctate elytra instead of having the punctures confused after the middle as in the West Indian species. But in the shape of the aedeagus with its peculiar split tip, this resembles the West Indian species and thus seems to connect the West Indian species with the Central American ones that it resembles more externally.

Argopistes coronatus, new species

Fig. 8

Between 3 and 4 mm. in length, globose, shining, usually pale yellow brown with a broad piceous ring about the elytra leaving the lateral and apical margins pale, occasionally entirely pale yellow or entirely piceous.

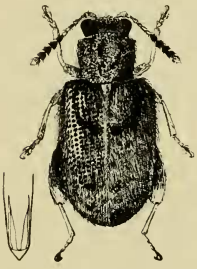
Head with the lower front deflexed, the mouthparts resting slightly above the space between the front coxae, the large eyes approaching each other on the occiput with a fovea near each, and below this the antennal sockets closely set, eyes slightly emarginate, and below the antennal sockets the lower front long with a median slightly raised line, otherwise smooth to the labrum. Antennae filiform, entirely pale, a long basal joint, second and third joints short and equal, the fourth longer. Prothorax twice as broad as long at base, convex, basal margin sinuate, apical angle curved out about side of eye;



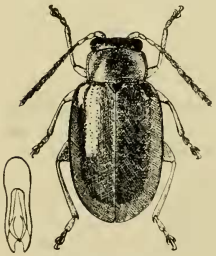
1. Hermaeophaga cuprea

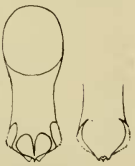
2. Prasona haroldi Baly

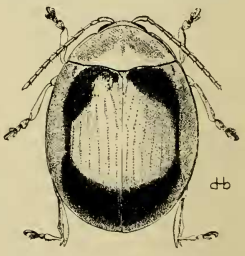
3. Hermaeophaga nigrorubra



4 Distigmoptera chrysodaedola 5. Prasona exclamationis (Boh) 6. Distigmoptera orchidophila







7. Cyrsylus trimitatis

8. Argopistes coronatus

PLATE 29. NEW CHRYSOMELIDAE.

pale yellow brown sometimes with indefinite darker median area, surface alutaceous and finely and densely puntate. Scutellum triangular, usually pale. Elytra shiny, convex and well rounded, with very fine dense punctures (granular) and below the surface, visible only on the pale yellow median area, rows of striate punctures that do not puncture the surface; color varying from entirely pale yellow brown to piceous but usually pale yellow brown with a broad deep brown or piceous ring on elytra about a pale centre, leaving apex and sides but not basal margin pale. Body beneath and legs usually entirely pale. Length 2.8-3.7 mm.; width 2.4-2.7 mm.

Type male and 10 paratypes, U.S.N.M. Type No. 60947, 2 paratypes in M.C.Z. and 2 in British Museum, collected on *Mayepea domingensis* at Guanica, Puerto Rico, July 30 and Oct. 17, 1934 by R. G. Oakley.

Remarks. This is the fourth species of *Argopistes* to be described from the Western Hemisphere, the others being *A. scyrtoides* Lec. from Florida, *A. coccinelloides* (Suffrian) from Cuba, and *A. rubicundus* Blake from Mexico. As in the case of the species from Florida and Cuba, and two South African species described by Bryant, this species also feeds on a plant of the olive family. This series of specimens was among a lot that H. S. Barber had set aside to describe as new.

HENRY ELLSWORTH EWING
1883-1951

Henry Ellsworth Ewing was born in Arcola, Illinois, February 11, 1883, and died in Washington, D. C., January 5, 1951. He was early interested in biology and originally studied medicine, but changed later to entomology. He came from a large family, many of the members apparently with exceptional abilities, and numbering among them physicians, lawyers and ministers. Dr. Ewing attended Knox College from 1902 to 1904 and transferred to the University of Illinois to obtain his A.B. in 1906, and M.A. in 1908. He also studied at the University of Chicago. In 1909 he went to Iowa State College. A Schuyler Fellowship sent him to Cornell in 1910 where he studied under Professor Comstock and received his Ph.D. in 1911. From Cornell Dr. Ewing went to the Oregon Agricultural Experiment Station, and stayed there until 1914 when he transferred back to Iowa as Assistant Professor and became Associate Professor in 1916. He was brought to Washington in 1919 as a Presidential Appointee to work as a specialist in the Arachnida, and he remained here until his death.

Dr. Ewing's first publication on mites was in 1907, based on specimens collected in Illinois. His descriptions of the Illinois oribatid mites constitute a large percentage of the